

ABSTRACT OF THE DISCLOSURE

A communication system for two-way exchange of information using a binary coded waveform has a base unit operable to transmit and receive electromagnetic radiation waveforms modulated by binary coded voice or data message signals, and a hybrid unit remote from the base unit and operable to receive and transmit binary coded electromagnetic radiation waveforms from and to the base unit.

The hybrid unit has a first surface acoustic wave device with an input to receive a binary coded electromagnetic radiation waveform from the base unit and cause a corresponding binary coded surface acoustic wave to travel from the input to an output thereof and be reflected back to the input.

A first transducer is connected to the output to receive further information from a source thereof and modify the reflected surface acoustic waveform, whereby the reflected surface acoustic waveform incorporates such further information and becomes a modified reflected surface acoustic waveform which travels to the input and then travels as a modified binary coded electromagnetic waveform to the base unit.